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formed between the first insulating regions and occupied by an amorphous insulating material;

and

an electrode formed on said metal-containing insulating film.

16. (Amended) The semiconductor device according to claim 12, wherein said metal-containing insulating film includes at least one surface which is covered with a covering insulating region made of the amorphous insulating material.

17. (Amended) A semiconductor device, comprising:

a first metal oxide insulating film formed directly or indirectly on a semiconductor substrate;

a second metal oxide insulating film formed on said first metal oxide insulating film; and
an electrode formed on said second metal oxide insulating film,

wherein, the decrease of the Gibbs free energy at the time when a metal contained in the electrode forms an oxide is larger than that at the time when a metal contained in the first metal oxide insulating film forms an oxide, and the decrease of the Gibbs free energy at the time when a metal contained in the second metal oxide insulating film forms an oxide is larger than or equal to that at the time when the metal contained in the electrode forms an oxide.

18. (Amended) The semiconductor device according to claim 17, wherein said second metal oxide insulating film is selected from the group consisting of a titanium oxide film, a zirconium oxide film, a hafnium oxide film, a tantalum oxide film and a niobium oxide film, and

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